



Date of issue: 12.18.2014

Product Code Number: 330460239  
Page: 1/6

<b>Trade name:</b>	<b>Sodium Thiosulfate</b>
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#### SECTION 1: Identification

**Product identifier:** Sodium Thiosulfate  
**Synonyms:** Sodium thiosulfate pentahydrate, thiosulfuric acid, disodium thiosulfate pentahydrate, sulfothionine  
**Product Code Number:** CAS# 10102-17-7  
**Molecular Formula:**  $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$   
**Molecular weight:** 248.183  
**Recommended use:** Used in photography, papermaking, textile, leather, chemical, pesticide and other industries.  
**Recommended restrictions:** Use with adequate ventilation.

**Manufacturer/Importer/Supplier/Distributor information:**

**Company Name:** Syndel USA  
**Company Address:** 1441 W. Smith Road  
Ferndale, WA 98248  
**Company Telephone:** Office hours (Mon – Fri)  
8:30 am to 5:00 pm  
1-800-283-5292  
**Company Contact Name:** Main Office  
**Emergency phone number:** CHEMTREC 24 HOUR EMERGENCY NUMBER:  
1-800-424-9300

#### SECTION 2: Hazard(s) identification

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

**GHS:** Not classified  
**GHS Signal word:** Not applicable.  
**GHS Hazard statement(s):** Not applicable.  
**GHS Precautionary statement(s):** Not applicable.  
**Hazard(s) not otherwise Classified (HNOC):** May cause eye, skin, and respiratory tract irritation. Ingestion may cause gastrointestinal disturbances. Prolonged or repeated skin contact may cause allergic dermatitis.

#### SECTION 3: Composition/information on ingredients

**Synonyms:** Sodium thiosulfate pentahydrate, thiosulfuric acid, disodium thiosulfate pentahydrate, sulfothionine

**CAS Number:** 10102-17-7  
**EC Number:** 231-867-5  
**Mixture:** Not applicable.

#### SECTION 4: First-aid measures

##### **Description of necessary measures:**

**Eye contact:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. If irritation persists, seek medical attention.

**Skin contact:** In case of contact, remove contaminated clothing. Wash affected skin with soap and water. Seek medical attention if irritation occurs. Wash clothing before reuse.

**Inhalation:** Not applicable for products in purchased form. If dusts are inhaled, remove to fresh air. If cough or breathing becomes difficult, seek medical attention. If breathing is difficult, give oxygen.

**Ingestion:** Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Seek medical attention immediately. NEVER GIVE LIQUIDS TO AN UNCONCIOUS PERSON.

**Most important symptoms/effects, acute and delayed:** May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Ingestion of large amounts may cause diarrhea. Prolonged or repeated skin contact may cause allergic dermatitis.

##### **Indication of immediate medical attention and special treatment needed:**

Note to physicians: treat symptomatically.

#### SECTION 5: Fire-fighting measures

**Suitable extinguishing media:** Water fog or spray, carbon dioxide, dry chemical powder, or appropriate foam. Use any means suitable for extinguishing surrounding fire.

**Specific hazards arising from the chemical:** Product is not combustible or explosive. Thermal decomposition will emit toxic/irritating fumes or gases. Gives off irritating or toxic fumes (or gases) in a fire.

**Special protective equipment and precautions for fire-fighters:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Cool fire exposed containers with water spray from a protected location. Remove containers from fire area if this can be done without risk.

## SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Isolate leakage areas and restrict access. Enhance ventilation. Use suitable protective equipment. Avoid contact with eyes and skin. Avoid breathing dust.

**Environmental Precautions:** Prevent spilled material from entering sewers, storm drains, streams or ponds, and natural waterways.

**Methods and material for containment and cleaning up:** Stop leak if without risk. Move containers from leak area. Sweep spilled material into suitable container for disposal. Avoid generating dusty conditions.

## SECTION 7: Handling and storage

**Precautions for safe handling:** Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Keep away from incompatibles such as oxidizing agents, acids. Avoid exposure to air or water. Avoid inhalation, contact with eyes, skin, and clothing. Avoid repeated or prolonged exposure. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8). If you feel unwell, seek medical attention and show the label when possible.

**Conditions for safe storage, including any incompatibles:** Store in a cool, dry and ventilated place. Store at room temperature. Hygroscopic. Keep container tightly closed when not in use. Protect from physical damage. Avoid direct sunlight, high temps and heat. Protect from moisture. Do not store together with oxidizing and acidic materials. Keep away from foodstuffs, beverages and food. Keep out of reach of children.

## SECTION 8: Exposure controls/personal protection

**Control Parameters:**

**Occupational exposure limits:** No exposure limits are listed.

**Appropriate engineering controls:** Use adequate ventilation to keep airborne concentrations low. Ensure that eyewash stations and safety showers are close to the workstation location..

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** Use chemical safety goggles if dusty conditions exist. Eye protection should be compliant with OSHA regulations.

**Skin and hand protection:** Wear protective gloves and protective clothing.

**Respiratory protection:** In dusty atmospheres, use an approved particulate filter respirator.

**Thermal hazards:** During the production of this product, wear appropriate thermal protective gloves to prevent thermal burns when necessary. None required for normal use.

## SECTION 9: Physical and chemical properties

### Appearance

**Physical state:** Colorless transparent to white crystals or granules

**Odor:** Odorless

**Odor threshold:** Not applicable

**pH:** 6.5 to 9.5 (20% aq. Sol.) 7.0-8.1 (1% aq. Sol.)

**Melting point/freezing point:** 48°C (118.4°F)

**Initial boiling point and** >100°C (212° F)

**boiling range:**

**Flash point:** Not applicable

**Evaporation rate:** Not applicable

**Flammability (solid, gas):** Non-flammable

### Upper/lower flammability or explosive limits

**Flammability limit – lower (%):** Not applicable

**Flammability limit – upper (%):** Not applicable

**Explosive limit – lower (%):** Not applicable

**Explosive limit – upper (%):** Not applicable

**Vapor pressure:** Negligible at 20°C (68°F)

**Vapor density:** Not applicable

**Relative density (Specific gravity):** 1.729

**Solubility (ies):** Soluble in water and turpentine; insoluble in alcohol

**Partition coefficient (n-octanol/water):** Not applicable

**Auto-ignition temperature:** Not applicable

**Decomposition temperature:** 100°C (212°F); elimination of water of crystallization

**Viscosity:** Not applicable

**Explosive properties:** No explosive

**Oxidizing properties:** No oxidizing properties

## SECTION 10: Stability and reactivity

**Reactivity:** Reactive with oxidizing agents and acids. Releases water of crystallization when heated.

**Chemical stability:** Stable under recommended storage conditions.  
Hygroscopic. Efflorescent in dry air above 33°C (91.4°F)

**Possibility of hazardous reactions:** Reacts violently with strong oxidants. Reacts with acids to release sulfur dioxide. An explosion may occur if triturated with nitrates, chlorates, or permanganates.

**Conditions to avoid:** Direct sunlight, heat, exposure to air or water and incompatible materials.

**Incompatible materials:** Oxidizing agents, acids, halogens, sodium nitrite, etc.

**Hazardous decomposition Products:** Sulfur oxides, sodium oxides.

## SECTION 11: Toxicological information

<b>Acute toxicity:</b>	No acute toxicity data. LD <sub>50</sub> intravenous rat: >2500 mg/kg. Sodium thiosulfate anhydrous is an agent with a low order of toxicity.
<b>Skin corrosion/irritation:</b>	Non corrosive for skin. May cause skin irritation.
<b>Serious eye damage/eye irritation:</b>	May cause eye irritation.
<b>Respiratory or skin sensitization:</b>	Prolonged or repeated skin contact may cause allergic dermatitis.
<b>Germ cell mutagenicity:</b>	Genotoxicity in vitro, Ames test, Result: Negative.
<b>Carcinogenicity:</b>	Not listed by NTP, IARC, OSHA or ACGIH.
<b>Reproductive toxicity:</b>	Sodium thiosulfate anhydrous is classified as FDA pregnancy category C. There are no adequate and well-controlled studies of sodium thiosulfate use in pregnant women.
<b>Specific target organ toxicity-Single exposure:</b>	Not classified for STOT.
<b>Specific target organ toxicity-Repeat exposure:</b>	Not classified for STOT.
<b>Aspiration hazard:</b>	Not considered an aspiration hazard.

## SECTION 12: Ecological information

<b>Ecotoxicity:</b>	Expected to be low.
<b>Persistence and Degradability:</b>	The methods for determining biodegradability are not applicable for inorganic substances. The product may persist in the dry environment. It is soluble in water and cannot persist in the aquatic environment.
<b>Bioaccumulative Potential:</b>	Not bioaccumulative.
<b>Mobility in Soil:</b>	If released in wet soil, this water-soluble product will absorb the water/moisture from the soil and may leach into groundwater. If released into dry soil, effloresces in warm dry air, remains on soil surface.
<b>Other adverse effects:</b>	Slightly hazardous for water; avoid discharge.

## SECTION 13: Disposal considerations

### Disposal instructions:

Recover or recycle if possible. Waste material must be disposed of in accordance with national, state and local regulations. Do not dispose directly into rivers, watercourses or drains. Empty containers should be taken for local recycling or waste disposal.

## SECTION 14: Transport information

**UN number and proper shipping name:** Not applicable.

**Transport hazard class(es):** Not regulated by ADR/RID, IMDG, or ICAO/IATA.  
**Packing group:** Not applicable.  
**Environmental hazards:** Marine pollutant/environmentally hazardous: NO.  
**Special precautions for user:** None.  
**Transport in bulk (Annex II of MARPOL):** Not applicable.

#### **SECTION 15: Regulatory Information**

##### **USA:**

**United States Federal Regulations:** This product is considered as non-hazardous under OSHA (29 CFR 1910.1200).

**CERCLA Hazardous Substance List, 40 CFR 302.4:** None have an RQ.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):** None.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None.

##### **SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None.

**Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** No

**Chronic Health Hazard:** No

**Fire Hazard:** No

**Pressure Hazard:** No

**Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):** None

##### **STATE REGULATIONS:**

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986):** No components are listed on Prop 65.

#### **SECTION 16: Other information**

Creation/issue date: **December 18, 2014**

To the best of our knowledge, the information contained herein is accurate. However Syndel USA does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.